

Application No.: 09/600,180
Reply to Office Action of: October 2, 2003
Amendment Dated: December 22, 2003

INTERVIEW SUMMARY

Applicants wish to thank Examiner Naff for the helpful and courteous discussion with Applicants' Representative on November 6, 2003. During this discussion the Examiner noted that he wants an explanation of the phrase "protective colloid." It was argued that the phrase is a term of art. In addition, the protective colloid is disclosed to be an emulsifier (specification, page 7, lines 4 and 5 from the bottom).

In regard to the Kraemer patents it was argued that the resulting polymers appear to be different from the claimed support polymer material

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REMARKS

Applicants wish to thank Examiner Naff for indicating allowability of Claims 1-3 over the prior art of record.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The rejection of Claim 4 under 35 U.S.C. §102(b) as anticipated by Kraemer et al (US 4,070,348) or Kramer et al (US 4,247,643) and the rejection of Claims 5-10 under 35 U.S.C. §103(a) as being unpatentable over Kraemer et al (US 4,070,348) or Kramer et al (US 4,247,643) are respectfully traversed.

The present invention as set forth in **amended Claim 4** relates to a support polymer material obtained by the process according to Claim 1, said support polymer having a binding capacity for penicillin amidase from *E. coli* of at least 220 U/g moist, based on a reaction of 1530 units of penicillin amidase with 1 g of said support polymer material, and said support polymer having a swelling factor of at most 1.5.

Claims 5-10 depend directly or indirectly on Claim 4.

In addition, **new Claim 21** has been added which is a product claim.

The support polymer material of the present invention is different from the polymers obtained by the Kramer et al patents because the different process conditions cause different molecular structures in the claimed polymer support material. The different structures result in superior binding capacities and superior swelling behavior (swelling factor). Comparative Example 3 at pages 13 and 14 of the specification is made according to the Kraemer method. As seen from the data of the Table from page 14 of the specification, the present invention

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(Example 1) achieves a binding capacity of 252, while Comparative Example 3 has only a binding capacity of 192. In addition, the present invention (Example 1) achieves a swelling factor of 1.3, while Comparative Example 3 has a high swelling factor of 3.9. Accordingly, a support polymer material having different properties resulting from a different molecular structure is achieved in the present invention.

In addition, and in contrast to the Kramer et al patents, the use of halogenated solvents can be avoided while achieving a binding capacity of at least 220 U/g moist for the penicillin amidase enzyme (specification, at page 2, last paragraph "object and achievement").

Therefore, the rejection of Claim 4 under 35 U.S.C. §102(b) as anticipated by Kraemer et al (US 4,070,348) or Kramer et al (US 4,247,643) and the rejection of Claims 5-10 under 35 U.S.C. §103(a) as being unpatentable over Kraemer et al (US 4,070,348) or Kramer et al (US 4,247,643) are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The rejection of Claims 5-10 under 35 U.S.C. §101 is obviated by the amendment of these Claims.

The rejection of Claims 1-10 under 35 U.S.C. §112, 2nd paragraph, is obviated by the amendment of these Claims. Claim 3 was already previously amended in the Preliminary Amendment filed August 4, 2000.

In addition, the phrase "protective colloid" is a term of art. Further, the protective colloid is disclosed to be an emulsifier (specification, page 7, lines 4 and 5 from the bottom).

In addition, the use of protective colloids with emulsoid characters for the stabilization of the dispersed phases in radically polymerized monomer/polymer systems is

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well known in the art. Under stirring, the protective colloids build up droplets in the dispersion and separate due to their emulsoid character the hydrophilic and hydrophobic phases. Thus coagulation of the dispersion is prevented and the conversion of monomers to polymers can take place.

In regard to the Examiner's request to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made, Applicants' Representative is confirming with the Applicants that all claims were and are commonly owned. Applicants' Representative will update the Examiner in the event that the claims are not commonly owned.

Finally, Applicants respectfully request that the Examiner acknowledge that the references cited in the **International Search Report**, filed in the above-identified application on **August 4, 2000**, have been considered. A first Request for Consideration was filed with the above-identified application on **August 4, 2000**. No statement regarding the consideration of the references cited in the International Search Report was provided in the first Office Action of October 2, 2003.

The MPEP states as follows:

"The examiner will consider the documents cited in the international search report in a PCT national stage application when the Form PCT/DO/EO/903 indicates that both the international search report and the copies of the documents are present in the national stage file. In such a case, the examiner should consider the documents from the international search report and indicate by a statement in the first Office action that the information has been considered."

MPEP §609

Accordingly, Applicants respectfully request the Office to acknowledge consideration

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of the above references. For the Examiners' convenience, Applicants attach herewith a courtesy copy of a Form PTO 1449 so that the Examiner can easily acknowledge consideration of the above references.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

LIST OF REFERENCES CITED BY APPLICANT

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APPLICANT

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FILING DATE

December 21, 2001

GROUP

1651

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	4,511,694 A	04/16/85	Krämer, et al.			
	AB	4,247,643 A	01/27/81	Krämer, et al.			
	AC	5,294,491	03/15/94	Goeldner, et al.			
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	
	AX	
	AY	
	AZ	

Additional References sheet(s) attached

Examiner Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.